

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A method of processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals ( $L_0; R_0$ ) and spatial parameters ( $P$ ), the method comprising:

- processing said left and right signals in order to provide processed signals ( $L_{0w}; R_{0w}$ ), in which said processing is controlled in dependence of said spatial parameters ( $P$ ).

2. (original) The method of claim 1, wherein said processing is controlled by a first parameter ( $w_l; w_r$ ) for each of said left and right signals, said first parameter being dependent on the spatial parameters ( $P$ ).

3. (original) The method of claim 2, wherein said first parameter ( $w_l; w_r$ ) is a function of time and/or frequency.

4. (currently amended) The method of claim 1,~~, 2 or 3~~ wherein said processing comprises filtering at least one of said left and right signals with a transfer function which depends on the spatial parameters ( $P$ ).

5. (currently amended) The method of claim 1, 2, 3 or 4,  
wherein said processing comprises:

- adding a first, second and third signal in order to obtain  
said processed channel signals ( $L_0; R_0$ ), in which the first signal  
includes the stereo signal modified by a first transfer function  
( $L_0 * H_A; R_0 * H_F$ ), the second signal includes the stereo signal of the  
same one channel modified by a second transfer function  
( $L_0 * H_B; R_0 * H_S$ ), and the third signal includes the stereo signal of  
the other channel modified by a third transfer function  
( $R_0 * H_D; L_0 * H_C$ ).

6. (original) The method of claim 5, wherein said second transfer  
function ( $H_B; H_S$ ) comprises a multiplication with said first  
parameter ( $W_1; W_r$ ) followed by multiplication with a first filter  
function ( $H_1; H_4$ ).

7. (original) The method of claim 5, wherein said first transfer  
function ( $H_A; H_F$ ) comprises a multiplication with a second parameter.

8. (original) The method of claim 5, wherein said first transfer  
function ( $H_A; H_F$ ) comprises a multiplication with a second parameter

in which said first parameter is a function of said second parameter.

9. (currently amended) The method of claim 5, 6, 7 or 8, wherein said third transfer function ( $H_1; H_0$ ) comprises a multiplication of the left or right signal ( $L_0; R_0$ ) with said first parameter ( $w_1; w_r$ ) followed by a second filter function ( $H_2; H_3$ ).

10. (currently amended) The method of claim 6, 7, 8 or 9, wherein said filter functions ( $H_1, H_2, H_3, H_4$ ) are time-invariant.

11. (currently amended) The method of ~~any one of the previous claims~~ claim 1, wherein said signals are described by the equation:

$$\begin{bmatrix} L_{ow} \\ R_{ow} \end{bmatrix} = H \begin{bmatrix} L_o \\ R_o \end{bmatrix}$$

in which the transfer function matrix ( $H$ ) is a function of the spatial parameters ( $P$ ).

12. (original) The method of claim 11, wherein said transfer function matrix ( $H$ ) is described by the equation:

$$H = \begin{bmatrix} (1-w_i)^a + (w_i)^a H_1 & (w_r)^a H_3 \\ (w_i)^a H_2 & (1-w_r)^a + (w_r)^a H_4 \end{bmatrix}$$

with  $a$  being a constant.

13. (currently amended) The method of claim 11-~~or~~-12, wherein said filter functions ( $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_4$ ) and parameters ( $w_l$ ,  $w_r$ ) are selected so that the transfer function matrix ( $H$ ) is invertible.

14. (currently amended) A method of ~~any one of the previous claims~~ claim 1, wherein said spatial parameters ( $P$ ) contain information describing signal levels of the N-channel signal.

15. (original) A device for processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals ( $L_0; R_0$ ) and spatial parameters ( $P$ ), the device comprising:

- a post-processor (5) for post-processing said left and right signals in order to provide processed signals ( $L_{0w}; R_{0w}$ ), in which said post-processing is controlled in dependence of said spatial parameters ( $P$ ).

16. (original) An encoder apparatus comprising:

- an encoder (2) for encoding an N-channel audio signal into left and right signals ( $L_0; R_0$ ) and spatial parameters ( $P$ ), and
- a device (5) according to claim 15 for processing said left

and right signals ( $L_0; R_0$ ) in dependence of said spatial parameters ( $P$ ).

17. (currently amended) A method for processing a stereo signal comprising left and right signals ( $L_{0w}; R_{0w}$ ), the method comprising inverting the processing in accordance with the method of ~~any one of claims 1-14~~claim 1.

18. (currently amended) A device (7) for processing a stereo signal comprising left and right signals ( $L_{0w}; R_{0w}$ ), the device comprising means for inverting the processing in accordance with the method of ~~any one of claims 1-14~~claim 1.

19. (original) A decoder apparatus comprising:

- a device (7) according to claim 18 for processing a stereo signal comprising left and right signals ( $L_{0w}; R_{0w}$ ), and
- a decoder for decoding the processed stereo signals ( $L_0; R_0$ ) into an N-channel audio signal.

20. (currently amended) An audio system (1) comprising:  
~~an encoder apparatus according to claim 16 having an encoder~~  
~~(2) for encoding an N-channel audio signal into left and right~~  
~~signals ( $L_0; R_0$ ) and spatial parameters ( $P$ ), and a device (5) for~~

post-processing said left and right signals ( $L_0; R_0$ ) in order to provide processed signals ( $L_{0w}; R_{0w}$ ), said post-processing being controlled in dependence on said spatial parameters ( $P$ ); and

      a decoder apparatus according to claim 19 for decoding said processed signals ( $L_{0w}; R_{0w}$ ), said decoder apparatus having a device for processing a stereo signal comprising left and right signals ( $L_{0w}; R_{0w}$ ), the device comprising means for inverting the post-processing performed in the encoder apparatus in order to provide stereo signals ( $L_0; R_0$ ), and a decoder for decoding the stereo signals ( $L_0; R_0$ ) into an N-channel audio signal.